

REMARKS

[0001] Claims 29, 31-37, 41, and 42 are pending. Claims 29, 31-37, 41 and 42 stand rejected under §103. Claims 29 and 31-33 stand rejected in view of Bach ‘739 (U.S. 5,781,739), Bach ‘660 (U.S. 6,141,660), and Francis (U.S. 6,665,861). Claims 34, 35, 41, and 42 stand rejected in view of Bach ‘739, Bach ‘660, Francis, and Womble (U.S. 5,488,648). Claim 36 stands rejected in view of Bach ‘739, Bach ‘660, Francis, and Dan (U.S. 6,560,639). Claim 37 stands rejected in view of Bach ‘739, Bach ‘660, Francis, and Snover (2004/0230987).

AMENDMENTS TO CLAIMS

[0002] Applicants have amended Claim 29 to clarify that the method involves generating and storing at least one XMI file comprising a standardized metadata description of MIDs/DIFs pairs and MODS/DOFs pairs. The amendment is fully supported by the specification. *See, e.g., ¶ 19.*

RESPONSE TO CLAIM REJECTIONS UNDER §103(a)

[0003] Claims 29, 31 – 37, and 41 – 42 stand rejected under different combinations of Bach ‘739, Bach ‘660, Francis, Dan, Snover, and Womble. Applicants respectfully disagree that the combinations render obvious the claims of record, and address the relevant claims in turn.

[0004] The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. *See* MPEP § 2142. *Graham v. John Deere Co.*, 383 US 1, 148 USPQ 459 (1966) sets forth the factual inquiry necessary to determine obviousness. Briefly, the Examiner must: (1) determine the scope and content of the prior art; (2) determine the differences between the prior art and the claims at issue; and (3) resolve the level of ordinary skill in the art. Against this

background, the obviousness or nonobviousness of the subject matter is determined. In particular, the Examiner must provide a “clear articulation of the reason(s) why the claimed invention would have been obvious.” MPEP §2141[III]. Applicants address each element in turn:

Scope and Content of the Prior Art

[0005] Applicants have summarized each of the cited references in prior responses. Applicants refer the Examiner to those summaries.

Level of Ordinary Skill in the Art

[0006] Several considerations are necessary to determine the level of one having ordinary skill in the art. “Factors that may be considered in determining the level of ordinary skill in the art include (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) education level of active workers in the field.”

Environmental Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983), cert. denied, 464 U.S. 1043 (1984); *see also*, MPEP § 2141.03.

[0007] Here, the art is software for automatically generating a web interface for an MFS-based IMS application. The education level of the inventors is at least a college degree. The types of problems include allowing access to legacy systems using current web-based technologies. The prior art required extensive GUI work and an operation-per-application approach to generating web access. The speed at which innovations are developed is typical of other areas of the software industry. The technology itself is of normal complexity and requires workers with skill and familiarity with legacy systems and web interfaces. Finally, the education level of workers in the field is generally a college degree in the art.

Differences Between the Prior Art and the Claims at Issue

[0008] Claim 29. Amended Claim 29 specifies that the method includes generating and storing at least one XMI file comprising a standardized metadata description of MIDs/DIFs pairs and MODs/DOFs pairs for the MFS-based IMS application that is associated with the imported MFS-based IMS source files. The office action argues that Francis teaches using XMI to exchange data, and that it would have been obvious, in view of Bach ‘739 and Bach ‘630, to generate XMI files for the MFS-based IMS application.

[0009] However, Applicants note that claim 29 specifies that the XMI file comprises a standardized metadata description of MIDs/DIFs pairs and MODs/DOFs pairs for the MFS-based IMS application. Bach ‘739, in contrast, explicitly states that it does not use MIDs/DIFs pairs and MODs/DOFs pairs to generate web interfaces. For example, at Col. 4, lines 54-59, Bach ‘739 states: “IMS Web **uses only** the information in MFS Message Input Descriptors (MIDs-111) and MFS Message Output Descriptors (MODs-112) to format input and output messages. IMS Web **does not use** the information found in the associated MFS Device Input Formats (DIFs) and MFS Device Output Formats (DOFs)” (emphasis added). As agreed in the interview, Bach ‘739 clearly teaches that DIFs and DOFs are not used in generating the CGI-BIN program and the input HTML form.

[0010] Bach ‘739 explicitly states that it does not use MIDs/DIFs pairs and MODs/DOFs pairs to generate the CGI-BIN program and input HTML form. In contrast, the claims specify generating an XMI standardized metadata description of MIDs/DIFs pairs and MODs/DOFs pairs. The result is a more flexible, powerful, and ultimately useful web interface with broader support for the MFS-based IMS application. Since DIFs and DOFs specify formatting information for a particular input or output device, using these components as part of the

description from which the middleware is generated provides a more complete solution, and can be used to replicate a particular terminal output device, a particular input device, etc.

[0011] As noted in previous office actions, Bach ‘660 deals with generating class specifications for object oriented applications accessing a hierarchical database such as IMS. Bach ‘660 does not deal with MFS-based IMS applications. As a result, Bach ‘660 does not teach MIDs/DIFs and MODs/DOFs or otherwise suggest generating XMI files comprising a standardized metadata description of MID/DIF pairs and MOD/DOF pairs. Francis, Dan, Snover, and Womble all similarly fail to teach or deal with MID/DIF pairs and MOD/DOF pairs.

[0012] Since none of the references teach the limitation described above, the references do not establish a *prima facie* case of obviousness of claim 29. To the contrary, Bach ‘739 teaches away from using MIDs/DIFs pairs and MODs/DOFs pairs. As a result, Applicants respectfully submit that the claimed invention is patentable over the cited art.

[0013] Claims 31-37 and 41-42. Claims 31-37 and 41-42 depend from claim 29. Applicants respectfully submit that they are allowable for at least the same reason that claim 29 is allowable.

[0014] New Claims 43-62. Applicants further note that they have added new claims 43-62 to the application. Applicants previously canceled claims directed to a utility (canceled claim 20) and an article of manufacture (canceled claim 40). New independent claims 43 and 53 are directed to a utility and an article of manufacture respectively, and contain the same subject matter as the previously canceled claims 20 and 40. New claims 43 and 53 also contain elements and subject matter comparable to those specified in amended claim 29. New claims 43-62 are allowable for at least the same reason as claim 29.

CONCLUSION

[0015] As a result of the presented amendments and remarks, Applicants believe that the claims are patentable and in condition for prompt allowance. Should the Examiner require additional information, Applicants respectfully request that the Examiner notify them of any such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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